

SECTION I (AMENDMENTS TO THE CLAIMS):

Following is a listing of claims 1-45, as amended herein with markings to show changes as follows:

1-37. (Cancelled).

38. (Currently amended) A method for detecting the presence of micromolar amounts of a toxicant comprising a metal atom in an aquatic, terrestrial, gaseous or industrial environmental sample, said method comprising contacting said sample putatively containing said toxicant with a nucleic acid molecule intercalated with a fluorescent dye; and screening for either dissociation of binding between said nucleic acid molecule and a said dye, ~~or inhibition of binding of the dye to said nucleic acid molecule~~, wherein said dissociation or inhibition of binding is indicative of the presence of said toxicant.

39-41. (Cancelled).

42. (Currently amended) A method according to ~~any one of Claim~~[[s]] 38[[-41]], wherein the ~~toxicant~~ metal atom is a heavy metal[[,]] or a heavy metal ion, ~~an organic compound or an organo-halide~~.

43. (Currently amended) A method according to ~~any one of Claim~~[[s]] 38[[-41]], wherein said fluorescent dye is selected from the group consisting of acridine orange and ethidium bromide.

44. (Currently amended) A method according to ~~any one of Claim~~[[s]] 38[[-41]], wherein said nucleic acid molecule is immobilized to a substrate comprising glass, polystyrene, polymethacrylate, cellulose, nylon, polyvinylchloride or polypropylene.

45. (Previously presented) A method according to Claim 44 wherein said substrate is polystyrene or polymethacrylate.